AMENDMENTS TO THE CLAIMS

Claims 1-7 cancelled.

8. (New) A method for analysing an input signal having an input frequency-bandwidth, the method comprising
- providing at least one frequency-bandwidth limited portion of the input signal,
- determining, for each of the at least one frequency-bandwidth limited portion of the input signal, durations of a predetermined number of half-periods and signal magnitudes during respective predetermined number of determined half-periods, and
- determining a distribution of the signal magnitudes as a function of their durations of the predetermined number of half-periods.

9. (New) A method according to claim 8 wherein the signal magnitudes are determined as peak-to-peak values.

10. (New) A method according to claim 8 comprising rectifying each of the at least one frequency-bandwidth limited portion of the input signal, and determining the signal magnitudes as the signal magnitude between two consecutive zeroes.

11. (New) A method according to claim 8 wherein the predetermined number of half-periods is one half-period.

12. (New) A method according to claim 8 wherein the distribution of the signal magnitudes as a function of their durations of the predetermined number of half-periods is used for identifying vowels in a speech signal.

13. (New) A method according to claim 12 wherein the as least one frequency-bandwidth limited portion has a bandwidth of at least one octave.

14. (New) A method according to claim 8 wherein the distribution of the signal magnitudes as a function of their durations of the predetermined number of half-periods is used for identifying a condition of an industrial product.

15. (New) A method according to claim 8 wherein the distribution of the signal magnitudes as a function of their durations of the predetermined number of half-periods is used for identifying a condition of a physiological signal in a human or animal body such as a nerve signal.